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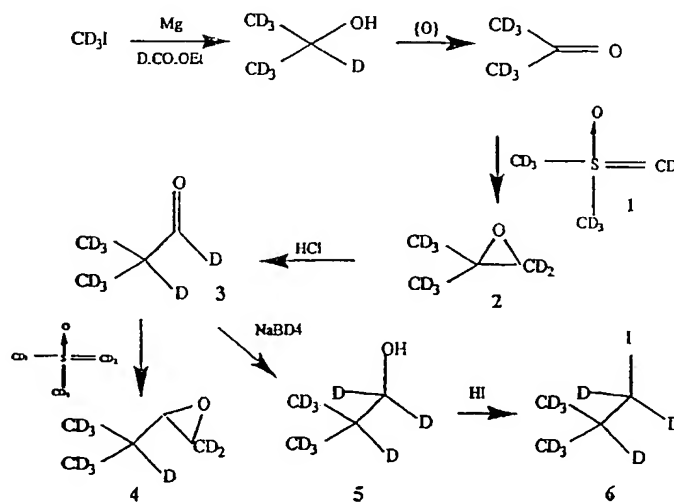
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(54) Title: SIDE CHAIN DEUTERATED AMINO ACIDS AND METHODS OF USE



SCHEME 2

(57) Abstract: Protein structural determination using NMR techniques is improved through use of proteins in which one or more amino acids in the peptidic sequence are isotopically enriched in the sidechain with ²H and are isotopically enriched on the backbone with ¹³C, ¹⁵N, ²H or any combination thereof. This invention provides amino acids isotopically enriched as above, which can be used to synthesize isotopically labeled proteins and peptides for protein structural determinations by NMR, and methods for their synthesis. Other embodiments of the invention include peptidic molecules, media for peptidic molecule expression, methods of making isotopically labeled peptidic molecules and methods of determining structural information of a peptidic molecule.



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